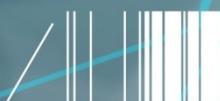


Public Record Office Victoria Policy

Archival Control Model



Public Record
Office Victoria



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Introduction

1.1 Purpose

This document describes the PROV Archival Control Model (ACM). The purpose of the model is to define how records are described within their archival context by Public Record Office Victoria. The model has been developed and adapted for implementation from the recommendations of the 2015 Archival Control Model Review.¹

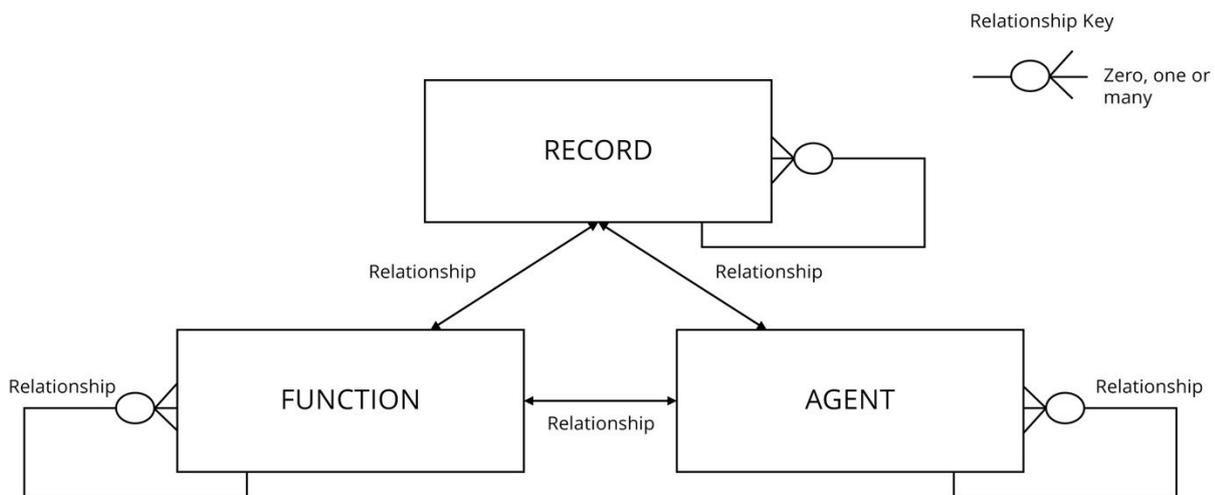


Figure 1 Figure 1: the PROV Archival Control Model entities based on SPIRT and ISO 23081

1.2 Scope

The Archival Control Model Version 2016 provides a framework for the archival documentation system of Public Record Office Victoria. It allows for the registration, description, preservation and management of government records and the documentation of their context. It also provides for access to records in PROV custody.

The model also defines the PROV approach for describing preservation events related to the maintenance of records over time, a key aspect of maintaining the provenance of records in custody.

While PROV acknowledges the vital importance of secondary data (such as digitised copies or transcriptions) for enriching, understanding, accessing and utilising the collection, the description of such secondary data is outside the scope of the Archival Control Model. The Model does however allow for the creation of relationships between secondary data and the entities described in the Model.

1.3 Context

In 2015 PROV commissioned Barbara Reed of Recordkeeping Innovation to review the extant archival control model and provide recommendations on a revised archival control model that would enable PROV to control, describe and preserve and make accessible the historical and contemporary digital records of Victorian Government and document

¹ Barbara Reed of Recordkeeping Innovation was appointed in 2015 to conduct a review of the PROV Archival Control Model.

their context. The model in place at the time of the 2015 Review was based on the Commonwealth Records Series System, adapted for Victoria. The Reed Review recommended a revised archival control model (RACM) to enable greater flexibility of description of entities and their relationships while remaining grounded in Australian archival descriptive practice. The recommendations of the Review were approved by PROV Executive in May 2016.

In late 2016 PROV commenced a project to replace the archival management system, Archives One. As part of this work the Archival Management System Reference Group refined the proposed RACM, defined the rules more precisely and specified metadata elements for each entity. The outcome of this work is the Revised Archival Control Model (2016 Version) defined and described in this document.²

This document is supported by detailed entity definition and description rules available in description practice manuals³. Ongoing practice and experience will build up a body of descriptive precedent to support implementation of and conformance with the RACM over time.

This revised model is an extension of PROV's previous archival control model, and has been designed to enable gradual uptake while remaining backwards compatible with records described under the previous Archival Control Model.

1.4 Principles

- The model is conceptual and is agnostic to the technology or technical standards that may be used to implement it in practice.
- The model describes both entities and relationships between entities. There are three broad entity types: Records, Functions and Agents.
- The RACM represents all Records consistently irrespective of whether they are digital or physical (the concept of physical and digital doesn't apply to the contextual entities (i.e. agencies and Functions)).
- All relationships are reciprocal.
- Although some relationships will be explicitly documented (an agency created a Record), some may be able to be inferred (a Record was created by an agency) by users (people and/or software systems), i.e. the relationships are reciprocal and only need to be documented once.
- The implementation of the RACM requires PROV to take a necessarily pragmatic approach to managing the extant information about entities and their relationships that has been accumulated over time as this information will not always easily map to model.
- The RACM describes Records as conceptual entities but it does not explicitly define or manage the instantiations of those Records. Typically, Records of type Item will have at least one instantiation: the preservation copy (physical or digital) and may also have zero or more secondary copies (a digitised version, an access copy, etc).

² See Appendix 2 for membership of the Archival Management System Reference Group.

³ *Victorian Public Record Series Identification and Registration Manual 2016* (to be revised); *Victorian Agency Registration Manual 2014* (to be revised), *Function Registration Manual* (to be developed)

Data model

This section describes the entities in the model in more detail. The model does not impose strict hierarchical structures, instead it emphasises relationships between entities. Breaking the notion of strict hierarchy frees the data model to deal with digital records more easily, and facilitating semantic web approaches, while not negating the existing documentation. It also allows greater conformance with other models in archival theory and practice and is based on the AS/NZS 5478 standard.

Any entity in the model may have archival management actions metadata associated with it. Archival management actions are recorded at the discretion of PROV to records in PROV custody.

NB: Entity/relationship types documented are the preliminary set specified as of August 2017. They will be validated, trialled and extended as the rules are tested and a body of descriptive precedent is developed.

Agent entity



Figure 2: Agent entity

Entity definition

The primary type of Agent is a Government Agency, which is defined as “an administrative unit which has or had responsibility for the provision of at least one aspect of government administration. It is that functional/operational purpose which accounts for the existence of the agency.”⁴

The RACM allows for additional types of the Agent entity to be registered and documented. These may include

- Persons
- Mechanisms

The primary Agent type in the Victorian Government context is Agency. PROV registers and describes an Agency (the unit established to administer the function) as a method of locating or isolating specific elements of government administration. Documenting type Agency provides a description of a record’s context, who created the records and for what purpose. It facilitates an understanding of the records’ context, of the operation of the administering agency(s) and the evolution of government over extended periods.

In addition, reconstruction of the current and historic administrative structures of Victorian government also allows for the accurate placement of public bodies in a functional and relational context over time.

Metadata requirements for each Agent type will vary.

⁴ Victorian Agency Identification and Registration Manual Public Record Office Victoria 2014

Metadata requirements for type Agency are documented in the Revised Archival Control Model Metadata Schema Detailed.

Detailed Agency definition and description rules are documented in the *PROV Agency Registration Manual* (Version 2014 to be revised to align with the RACM)⁵.

Entity relationship types

Agent / Agent

- Previous / Subsequent
- Superior / Subordinate
- Contains / Is Part Of
- Includes / Is A Member Of

Agent / Record (type Series or higher)

- Recording
- Responsible for

Agent / Function

- Primary responsibility
- Secondary responsibility

Entity rules

Note that the definitive set of rules relating to the creation of an agency entity are contained in the *Victorian Agency Registration Manual* (Version 2014 to be revised to align with the RACM).

- Any Agent (including all levels of agency aggregation) may be related to Record entities of type Series or above.
- Any Agent can be related to a Function entity.
- Where Functions are assigned to layers of aggregation beneath the top layer, those Functions aggregate up to the layers of aggregation above.
- Containment relationships are defined between Agent entities to represent the notion of subordinate and superior agencies.

Function entity

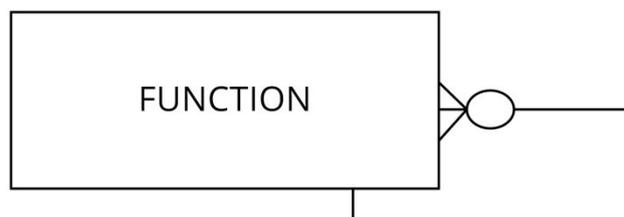


Figure 3: Function entity

⁵ *Victorian Agency Identification and Registration Manual* (2014) to be revised to align with the RACM

Entity definition

Functions represent the major responsibilities of government that may be managed by one or more agencies over time. Function entities may be linked by relationships to Agent entities and Record entities of type Series or above.

Entity relationship types

Function / Function

- Broader / Narrower
- Previous / Subsequent
- Related
- Use for

Function / Agent

- Primary responsibility
- Secondary responsibility

Function / Record

- Generates / Generated by
- Documents

Entity rules

- A single Function may be related to any number of Agent, Record or Function entities.
- There is no fixed hierarchy for Functions. Where hierarchies exist they can be described by creating containment relationships between Functions (broader/narrower).
- Functions should be described with date range information.
- Historic/superseded Functions should be managed through the creation of previous/subsequent relationships between the applicable Functions.
- For pragmatic reasons Functions must only be related to Records of type Series or above.
- Function /Function Use for relationship only applies between Function and Function type Term.

Record entity

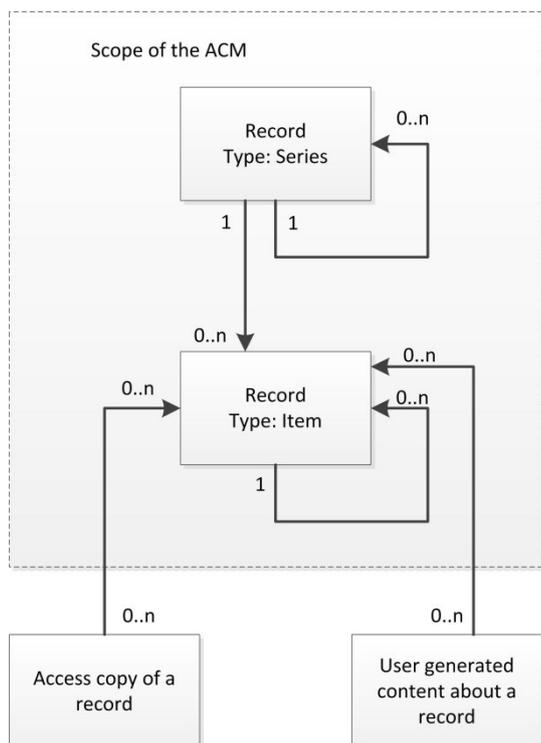


Figure 4: Record entity model⁶

Entity definition

The Record entity represents the records of the Victorian Government. It is a conceptual entity that is not concerned with custody (physical management). There are currently two defined types of Record entity, however it is expected that other types will be defined over time. For example, a "System" type may be defined in future to represent a recordkeeping or business system.

Series type definition

A group of records which are recorded or maintained by the same agency (or agencies) and which:

- are in the same numerical, alphabetical, chronological or other identifiable sequence; or
- result from the same accumulation or filing process.

Item type definition

A discrete unit of records managed within type Series. A record of type Item represents a discrete part of a record keeping system or a logical or convenient grouping of records. It may represent one record or multiple records and can be applied to any aggregation of records below type Series.

The following list of examples are not exhaustive:

- a group of folios fastened together to form a file
- a group of electronic files aggregated in a folder
- a single volume
- a single document (in any medium: folio, card, map, plan, photograph) which exists unattached to another

⁶ The original model has been modified and replaced by a revised model by Andrew Waugh 26.11.2015, with further terminological modification.

- a film, sound recording, computer tape
- an information object in a VERS3⁷ VEO⁸ (see Appendix 5 for an example)
- a record object in a VERS2 VEO (see Appendix 5 for an example).

Entity relationship types

Record / Record

- Controlled by / Controls (indexes and registers)
- Previous / Subsequent
- Contains / Is part of
- Related

Record (type Series or higher) / Agency:

- Recorded by
- Responsible (control relationship)
- Transferred by
- In Custody of

Record / Function

- Documents
- Generates / Generated by

Entity rules

Note that the definitive set of rules relating to the creation of a Record entity are contained in the *Victorian Series Registration Manual* (Version 2016 to be revised to align with the RACM).

- Record entities can have numerous types (sub-categories).
- Records can be related to each other using containment or hierarchical relationships as required.
- A Record of type Series is a logical or convenient grouping mechanism for Records of type Item.
- A Record of any type can be a container and can contain other Records.
- A Record of type Series may exist without Records of type Item.
- A Record of type Item may be used to describe a discrete entity or as a logical or convenient grouping mechanism for other Records.
- A Record of type Item must be related to a Record of type Series or above.
- A Record of type Item must be related to at least one Record of type Series.
- A Record of type Item may be related to more than one Record of type Series.
- A Record of type Item may or may not have a physical or digital instantiation. Typically, however a Record of type Item would have a primary/preservation copy, as well as zero or more secondary copies (a digitised version, access copy, etc). Instantiations are not explicitly defined in this model.
- A Record of type Series can be related to more than one agency simultaneously to document multi-agency Series.
- A Record of type Item cannot be directly related to an Agent or Function.

⁷ Victorian Electronic Records Strategy: <http://prov.vic.gov.au/government/vers>

⁸ VERS Encapsulation Object

Metadata elements for describing entities and relationships

The metadata elements required to support the high-level model outlined in this document have been identified and confirmed to an advanced stage, with finalisation depending on the development and implementation of the new archival management system, and related systems such as the VEO processing application, digital archive ingest and the warehouse management systems.

Several key principles have guided their development:

- ensuring consistency with the Australian Series System
- achieving broad consistency with the requirements of the AS/NZS 5478 Recordkeeping Metadata Property Reference Set
- providing support for key PROV business practices
- remaining backwards compatible with the previous Archival Control Model
- providing flexibility and extensibility in line with the principles of the revised Archival Control model.

The metadata elements used to describe the entities and relationships defined in the model include, but are not restricted to, the revised ACM entities and relationships between the entities:

- Agent
- Function
- Record (Series type)
- Record (Item type)

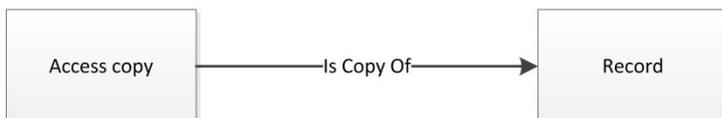
Metadata requirements for each entity are specified by *Revised Archival Control Model 2016 Metadata Schema Detailed*.

Relationships to entities outside the model

PROV is committed to facilitating the ongoing understanding, use and enrichment of the collection. This includes publishing and making accessible contextual and secondary information about the collection (for example user generated content, digitised copies, transcriptions, etc), and enabling others to link to Records managed in the Archival Control Model. However, representing this type of secondary data falls outside the scope of the ACM, which remains tightly focused on the registration, description and management of the Records and their related Functions and Agents.

The model expects such secondary data will be mapped to entities in the collection via the creation of external relationship entities. Some of these relationships will be described and managed by PROV, and some may be managed externally. As relationships are reciprocal, it is not necessary to explicitly hardcode both directions of a relationship.

Explicit relationship: Access copy to record



Implicit/derived relationship: Access copy to record

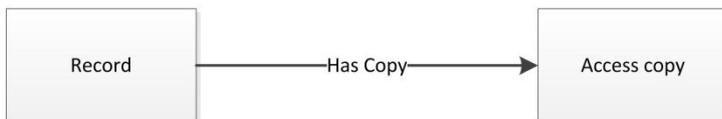


Figure 5: Explicit and inferred relationships

As described in Figure 5, if one side of a relationship is known, the other side can be inferred. PROV will continue to provide a cohesive view of entities, and related contextual information about these entities to our users.

Relating contextual information and data to the PROV collection

In practice, the records in PROV custody may have many related objects that are not described and managed in the Archival Control Model but provide valuable context and access to the collection. Examples include:

- Access copies/representations
- Transcriptions
- Extended descriptions
- User generated content

Relationships between these objects and the entities represented in the ACM are expected to be described in the system or systems that hold them.

APPENDIX 1: Entity Modelling Conventions

In an entity-relationship figure, entities – Agents, Records, Functions – are represented by rectangles. The lines connecting them represent relationships between the entities. At the end of the relationship line is a symbol to represent the number of occurrences of the entity at that end of the relationship. The key below shows, at the bottom of each line, the three-line endings used in modelling.

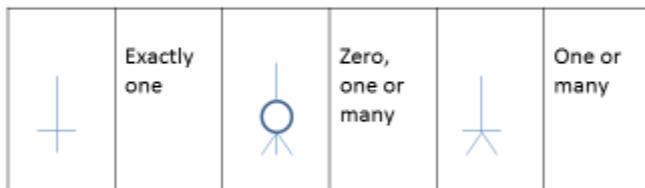


Figure 6: Relationship line endings key

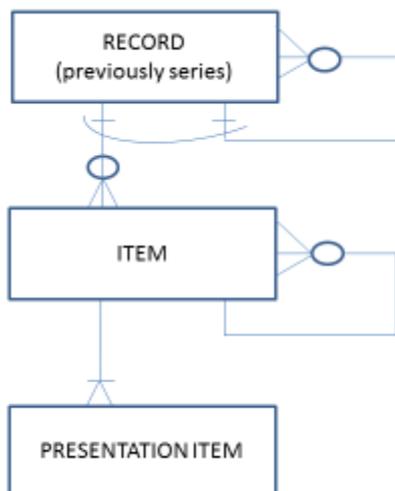


Figure 7: Relationship line endings for Record entity

These relationship line endings may be combined in any way. So, for example, Figure 7 shows a simple entity-relationship figure that indicates ‘one Record entity can be related to one or many Items; and each Item is related to only one Record.

A curved line crossing two or more relationships indicates that the relationships are mutually exclusive, for any given instance (technically referred to as an ‘exclusive OR’ relationship). So, for example, the curved line in Figure 7 means each Record contains zero, one or more Records, or else zero, one or more Items, but not both.

An entity can be related to itself. This is called a ‘recursive’ relationship. For example, Figure 7 shows that Records can be related to other Records. In practice, this means that Records form a hierarchy, where one Record contains other Records, each of which contain further Records and so on. The last Record has no further Records relationships, so the relationship line shows that each Record contains zero, one or many Items.

APPENDIX 2: Archival Management System Reference Group

Membership 2016-2107

- Nick Fahey
- Charlie Farrugia
- David Fowler
- Emma Fowler
- Peter Francis
- Susan Lin
- Jack Martin
- Julie McCormack (Chair)
- Owen O'Neill
- Howard Quenault
- Andrea Rae (Minutes)
- Andrew Waugh
- Daniel Wilksch

APPENDIX 3: Relationship types

Agent / Agent

- Previous / Subsequent
- Superior / Subordinate
- Contains / Is Part Of
- Includes / Is A Member Of

Agent / Record (type Series or higher)

- Recording
- Responsible for

Agent / Function

- Primary responsibility
- Secondary responsibility

Function / Function

- Broader / Narrower
- Previous / Subsequent
- Related
- Use for

Function / Agent

- Primary responsibility
- Secondary responsibility

Function / Record

- Generates / Generated by
- Documents

Record / Record

- Controlled by / Controls
- Previous / Subsequent
- Contains / Is part of
- Related

Record (type Series or higher) / Agency:

- Recorded by
- Responsible (control relationship)

Record / Function

- Generates / Generated by
- Documents

APPENDIX 4: Glossary

Container: A container entity is an entity that groups other entities into a logical or convenient grouping.

Containment Relationship: A containment relationship is a one to many relationship from a parent entity to a child entity.

Entity: A distinct thing in the Archival Control Model. There are three types of entity: Record, Agent and Function.

Instantiation: An instantiation is a representation. An instantiation of a record is a representation of the record in some type of format. An instantiation could be physical or digital.

APPENDIX 5: Mapping VERS 2 and VERS 3 VEOs to ACM Item

VERS 2 VEOs - 3 File and 4 Record

VERS 2 File VEO
 Cabinet Working Folder
 CW13-594
 PORTFOLIO POLICY ADVICE - WORKPLACE - Innovation -
 Building Government Initiative

ITEM (current PROV ACM)

Each File and Record VEO is a single VEO object (xml file):
 e.g.
 13-14891.veo
 CW13-594.veo
 CW13-1244.veo
 D13-136027.veo
 D13-168499.veo
 D13-176507.veo
 D13-185497.veo

Current Thinking :
 The Record Object within a VERS 2 File and Record VEO will each equate to an Item in the PROV ACM v2016.
 There are 7 Items in this example.

contains

VERS 2 File VEO
 Sub Folder
 13-14891
 DTPLI request

contains

VERS 2 Record VEO
 Corporate Document
 D13-176507
 Fw: BGI letter to Bill Smith

VERS 2 Document

VERS 2 Encoding (1): D13-176507/final.htm

VERS 2 Encoding (2): D13-176507/rendition-0.ntf

SUB-ITEM (current PROV ACM)

contains

VERS 2 Record VEO
 Corporate Document
 D13-168499
 BGI planning session

VERS 2 Document

VERS 2 Encoding (1): D13-168499/final.htm

VERS 2 Encoding (2): D13-168499/rendition-o.ntf

contains

VERS 2 File VEO
 Sub Folder
 CW13-1244
 Consideration of post BGI arrangements

contains

VERS 2 Record VEO
 Corporate Document
 D13-136027
 Evaluation measures re. BGI 10 Sep 2013

VERS 2 Document

VERS 2 Encoding: D13-136027/final.docx

SUB-ITEM (current PROV ACM)

contains

VERS 2 Record VEO
 Corporate Document
 D13-185497
 BGI options proposed for Secretary's consideration on 29 September 2013

VERS 2 Document (1)

VERS 2 Encoding (1): D13-185497/final.docx

VERS 2 Encoding (2): D13-155497/rendition-0.pdf

VERS 2 Document (2)

VERS 2 Encoding: D13-185497/revision-1.docx

VERS 2 Document (3)

VERS 2 Encoding: D13-185497/revision-2.docx

VERS 2 Document (4)

VERS 2 Encoding: D13-185497/revision-3.docx

VERS 2 Document (5)

VERS 2 Encoding: D13-185497/revision-4.docx

VERS 2 Document (6)

VERS 2 Encoding: D13-185497/revision-5.docx

A single VERS 3 VEO

neoVEO Information Object (depth 1)
Cabinet Working Folder
CW13-594
PORTFOLIO POLICY ADVICE - WORKPLACE - Innovation - Building Government Initiative

All the Information Objects are contained in a single VEO file:

CW13-594.veo.zip

Current Thinking:

A VERS 3 Information Object will equate to an Item in the PROV ACM v2016.
There are 7 ACM Items in this example

